

IN THE CLAIMS:

1. (Currently Amended) A method for sealing cylindrical capsules formed of a body and of a cap inserted axially inside one another, comprising the phases of:

-placing the capsules to be sealed on a first rigid circular support horizontally placed, angularly movable in steps provided with a first plurality of seats designed to each contain a respective capsule, said capsules in said first circular support being disposed according to a horizontal position, [[the]] said first rigid circular support being designed to feed the capsules to means designed to distribute a sealing solution along the rim of the cap of each capsule;

-transferring and overturning to a vertical position, the capsules that have received the sealing solution, from said first rigid circular support to a second rigid circular support horizontally disposed under said first rigid circular support and angularly movable in steps provided with a second plurality of seats designed to contain a respective capsule, in a vertical position, the number of seats of said second plurality being much larger than that of [[the]] said seats of said first plurality, [[the]] said second rigid circular support then in turn transferring the capsules to an unloading station after a time sufficient to consolidate sealing.

2. (Canceled).

3. (Currently Amended) Method as claimed in claim 1, wherein the capsules in

[[the]] said second rigid circular support are disposed with the cap facing downwards.

4. (Currently Amended) An apparatus for sealing cylindrical capsules formed of a body and of a cap inserted axially inside one another, comprising means to feed capsules positioned to be sealed, means to distribute a liquid sealing solution along the rim of the cap of each capsule and a computerized microprocessor control unit designed to coordinate the movement of the members of the apparatus, further including:

-two rigid a first and a second horizontally circular platform-shaped supports angularly movable in steps, each provided with seats designed to contain the capsules to be sealed, the seats of [[the]] said second circular platform-shaped support being in a much larger number than the seats of [[the]] said first circular platform-shaped support and said second circular platform-shaped support partially underlying said first circular platform-shaped support;

-for each movable circular platform-shaped support, respective means for stepped angular feed;

-means to transfer the capsules from [[the]] said first circular platform-shaped support to [[the]] said second rigid movable circular platform-shaped support; and

-means to unload the sealed capsules from [[the]] said second [[rigid]] circular platform-shaped movable support;

a plurality of through apertures provided in each circular platform-shaped support, distributed regularly according to coaxial circumferences to form said seats for said

20      capsules, each revolving circular platform-shaped support being superimposed and moved  
close to a respective fixed table designed to prevent the capsules from being dropped from  
said apertures.

5. (Canceled).

6. (Currently Amended) Apparatus as claimed in ~~at least~~ claim 5, wherein said  
apertures of ~~[[the]]~~ said first circular platform-shaped support are distributed in the same  
number according to two concentric circumferences spaced apart and said apertures of  
5      ~~[[the]]~~ said second circular platform-shaped support are distributed in the same number  
according to several concentric circumferences.

7. (Currently Amended) Apparatus as claimed in claim 4, wherein said means to  
distribute the sealing solution include, for each row of apertures of ~~[[the]]~~ said first circular  
platform-shaped support, a distributor disk partially immersed in a container containing the  
10      liquid sealing solution, said disk, through an aperture produced in ~~[[the]]~~ said table  
underlying ~~[[the]]~~ said first circular platform-shaped support at the level of each circular  
row of apertures coming, with stepped rotation of ~~[[the]]~~ said first circular platform-shaped  
support, into contact successively with the capsules disposed inside the apertures of ~~[[the]]~~  
said first circular platform-shaped support, raising them slightly.

8. (Currently Amended) Apparatus as claimed in claim 7, wherein said means to distribute the sealing solution include a pressure roller rotating together with ~~[[the]]~~ said disk, in the same direction and at the same peripheral speed as ~~[[the]]~~ said disk, ~~[[the]]~~ said roller being carried by an oscillating element designed to place it on the capsule to be sealed on the opposite side of the respective distributor disk, to provide the capsules together with ~~[[the]]~~ said disk with a rotating movement to allow ~~[[the]]~~ said disk to uniformly transfer the liquid solution to the entire periphery of the rim of the cap of the capsule.

9. (Currently Amended) Apparatus as claimed in claim 8, wherein, for each capsule, said pressure roller has, projecting from the periphery, a pair of gaskets made of rubber or another resilient material designed to come into contact with the capsule on opposed parts with respect to the rim of the cap of the capsule, said gaskets each being spaced from said rim so that ~~[[they]]~~ said pair of gaskets are not wet by the solution distributed thereon.

10. (Currently Amended) Apparatus as claimed in claim 4, wherein:

-said revolving circular platform-shaped supports, with respective fixed tables, are partly superimposed horizontally and are moved vertically close one above the other;

-in ~~[[the]]~~ said fixed table of the upper platform for each circumference of apertures, an aperture is provided designed to allow a capsule to drop from an aperture of the upper platform into an aperture of the lower platform;

-under the lower platform, horizontally at the level of apertures in [[the]] said fixed table of the upper platform and in [[the]] said fixed table of the lower platform, suction means are provided, designed to accelerate feed of the capsule from the upper platform to the lower platform; and

-translating means of the second platform are provided, designed to move it radially in steps with respect to the first platform, to position in succession apertures of the lower platform under apertures of the upper platform, to receive the capsules through gravity.

11. (Currently Amended) Apparatus as claimed in claim 4, for sealing capsules of elongated form, wherein the capsules are placed in the apertures of the first circular platform-shaped support in a horizontal position, with the axis of the capsule disposed radially to [[the]] said first circular platform-shaped support, and the capsules in the second circular platform-shaped support are disposed in vertical position, means being provided to overturn the capsules during transfer from [[the]] said first circular platform-shaped support to [[the]] said second circular platform-shaped support.

12. (Currently Amended) Apparatus as claimed in claim 11, wherein said overturning means include, in the apertures of the surface underneath and adjacent to [[the]] said first circular platform-shaped support, a respective pair of projections to support the capsule to be transferred, said projections being disposed inside the aperture at the level of the opposed ends of the capsule, one of said projections of each pair, by means of an

actuator, being withdrawable from the aperture to allow the relative end of the capsule to drop overturning from a horizontal position to a vertical position.

13. (Currently Amended) Apparatus as claimed in claim 4, wherein ~~[[the]]~~ said microprocessor control unit of the apparatus is designed to control in a synchronized way stepped rotation and relative translation of the platforms, ~~[[the]]~~ an actuator to overturn the capsules, and general synchronized operation of the feeding and sealing means.

14. (Canceled).

15. (New) An apparatus for sealing and drying cylindrical capsules formed of a body and a cap inserted axially inside one another, said apparatus comprising:

a first horizontally circular platform-shaped support with a top and a bottom, said top including a plurality of horizontal seats, each horizontal seat including a through  
5 aperture means to selectively support a capsule in a horizontal position or drop the capsule through said through aperture means, said first circular platform-shaped support rotating in steps around a first axis and a transfer means to selectively transfer the capsules from said first rigid platform-shaped circular support through said through aperture to below;

a stepped angular feed means above said top to selectively feed the capsules onto  
10 each of said horizontal seat;

a sealing means below said bottom to distribute a liquid sealing solution along the

rim of the cap of each capsule;

a second horizontally circular platform-shaped support placed partially underneath said first horizontally circular platform-shaped support and including another top and another bottom, said another top including a plurality of vertical seats to support the capsules in a vertical position and synchronously rotating in said steps around a second axis, wherein said plurality of vertical seats outnumber said plurality of horizontal seats;

an unloading means for unloading the sealed capsules from said second platform-shaped circular movable support; and

a computerized microprocessor control unit designed to synchronize said steps.

16. (New) The apparatus according to claim 15, wherein said first and said second revolving circular platform-shaped supports are superimposed and move close to a respective first and a second fixed tables designed to prevent the capsules from being dropped from said through apertures, wherein said first fixed table includes a cross section through hole to allow selective capsules to drop through said through apertures.

17. (New) Apparatus according to claim 16, wherein said sealing means include, for each row of apertures of said first platform-shaped circular support, a distributor disk partially immersed in a container containing a liquid sealing solution, said distributor disk, through an aperture produced in first fixed table at the level of each circular row of apertures coming, with stepped rotation of said first circular platform-shaped support, into

contact successively with the capsules disposed inside the apertures of the first circular platform-shaped support, raising them slightly.

18. (New) Apparatus according to claim 17, wherein said sealing means include a pressure roller rotating together with said distribution disk, in the same direction and at the same peripheral speed as said distribution disk, said roller being carried by an oscillating element designed to place the edge of said roller on the capsule to be sealed on the opposite  
5 side of said respective distributor disk, to provide the capsules together with said distributor disk with a rotating movement to allow said distributor disk to uniformly transfer the liquid solution to the entire periphery of the rim of the cap of the capsule.

19. (New) The apparatus according to claim 18, wherein, for each capsule, said pressure roller has, projecting from the periphery, a pair of gaskets made of rubber or another resilient material designed to come into contact with the capsule on opposed parts with respect to the rim of the cap of the capsule, said gaskets each being spaced from said  
5 rim so that they are not wet by the solution distributed thereon.

20. (New) The apparatus according to claim 16, wherein:

said revolving circular platform-shaped supports, with respective fixed tables, are partly superimposed horizontally and are moved vertically close to one another;

in said fixed table of said first circular platform-shaped support for each



5 circumference of apertures, an aperture is provided designed to allow a capsule to drop from an aperture of said upper platform into an aperture of said second circular platform-shaped support;

under said second circular platform-shaped support, horizontally at the level of apertures in said fixed table of the first circular platform-shaped support and in said fixed  
10 table of said second platform-shaped support, suction means are provided, designed to accelerate feed of the capsule from said first circular platform-shaped support to said second circular platform-shaped support; and

translating means of the second circular platform-shaped support are provided, designed to move said second circular platform-shaped support radially in steps with  
15 respect to said first circular platform-shaped support, to position in succession apertures of said second circular platform-shaped support under apertures of said first platform-shaped support, to receive the capsules through gravity.

21. (New) The apparatus according to claim 16, for sealing capsules of elongated form, wherein the capsules are placed in the apertures of said first circular platform-shaped support in a horizontal position, with the axis of the capsule disposed radially to said circular platform-shaped support, and the capsules in said second circular platform-shaped  
5 support are disposed in vertical position, overturning means being provided to overturn the capsules during transfer from said first circular platform-shaped support to said second platform-shaped support.

22. (New) The apparatus according to claim 21, wherein said overturning means include, in the apertures of the surface underneath and adjacent to said first circular platform-shaped support, a respective pair of projections to support the capsule to be transferred, said projections being disposed inside the aperture at the level of the opposed ends of the capsule, one of said projections of each pair, by means of an actuator, being withdrawable from the aperture to allow the relative end of the capsule to drop overturning from a horizontal position to a vertical position.

23. (New) The apparatus according to claim 16, wherein said microprocessor control unit is designed to control said synchronized stepped rotation and relative translation of said first and said second circular platform-shaped supports, an actuator to overturn the capsules, and general synchronized operation of said feeding and sealing means.